



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Application of:

Gyoo-Chul JO, *et al.*

Application No.: 10/015,650

Filed: December 17, 2001

For: ETCHANT AND ARRAY SUBSTRATE  
HAVING COPPER LINES ETCHED  
BY THE ETCHANT

Confirmation No.: 8522

Group Art Unit: 1765

Examiner: K.C. Chen

Commissioner for Patents  
U.S. Patent and Trademark Office  
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Customer Window  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202

Sir:

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached PTO-1449. Each item of information contained in this Information Disclosure Statement was cited in a United Kingdom Patent Office Communication (copy enclosed) in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Therefore, no fee is required for filing this Information Disclosure Statement.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute “prior art.” If it should be determined that the listed documents do not constitute “prior art” under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should any of the documents be applied against the claims of the present application.

A concise explanation of relevance for each of the non-English language documents listed may be ascertained from the English-language translation of their Abstract.

A copy of each listed document is attached. Applicants respectfully request that the Examiner consider the listed documents and evidence that consideration by making appropriate notations on the attached form.

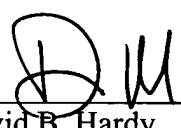
**Except** for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**

Dated: October 28, 2003

By: \_\_\_\_\_

  
David B. Hardy  
Reg. No. 47,362

**CUSTOMER NO. 009629**  
**MORGAN, LEWIS & BOCKIUS LLP**  
1111 Pennsylvania Avenue, NW  
Washington, D.C. 20004  
Tel.: (202) 739-3000

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# **INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

PTO Form 1449

Attorney Docket No.

053785-5043

Application No.

10/015,650

Applicant: Gyoo-Chul JO, *et al.*

Filing Date: December 17, 2001

Group Art Unit: 1765

## **U.S. PATENT DOCUMENTS**

| *Examiner<br>Initial | Document<br>Number | Date       | Name                  | Class | Sub<br>Class | Filing Date |
|----------------------|--------------------|------------|-----------------------|-------|--------------|-------------|
|                      | 6,126,755          | 10/03/2000 | Colgan, et al.        |       |              |             |
|                      | 5,800,726          | 09/01/1998 | Cotte, et al.         |       |              |             |
|                      | 5,248,386          | 09/28/1993 | Dastolfo, Jr., et al. |       |              |             |
|                      | 4,401,509          | 08/30/1983 | Schellinger, Jr.      |       |              |             |
|                      | 4,306,933          | 12/22/1981 | Da Fonte, Jr.         |       |              |             |
|                      | 4,220,706          | 09/02/1980 | Spak                  |       |              |             |
|                      |                    |            |                       |       |              |             |

## **FOREIGN PATENT DOCUMENTS**

| Document<br>Number | Date       | Country      | Class | Sub<br>Class | <u>Translation</u><br>YES NO |  |
|--------------------|------------|--------------|-------|--------------|------------------------------|--|
| WO 01/68930        | 09/20/2001 | PCT          |       |              |                              |  |
| WO 91/05079        | 04/18/1991 | PCT          |       |              |                              |  |
| EP 0 890 660       | 01/13/1999 | Europe       |       |              |                              |  |
| DE 41 00 839       | 07/16/1992 | Germany      |       |              | Abstract                     |  |
| JP 8-199376        | 08/06/1996 | Japan        |       |              | Abstract                     |  |
| SU 1458430         | 02/15/1989 | Soviet Union |       |              | Abstract                     |  |

Examiner

Date Considered

Examiner:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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October 28, 2003

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## INFORMATION DISCLOSURE STATEMENT

| Category | Relevant to claims | Identity of document and passage or figure of particular relevance   |   |
|----------|--------------------|--|---|
| X        | 1-3, 7             | EP 0890660 A   | (MEC), see especially the preamble                                    |
| XP       | 1-3, 7             | WO 01/68930 A1   | (HENKEL CORPN), see the summary of invention and general description. |
| X        | 1-3, 6, 7          | WO 91/05079 A1   | (INTEROX CHEMICAL), see especially the summary of the invention.      |
| X        | 1-3, 6, 7          | US 6126755 A   | (SOLVAY INTEROX), see column 1, line 65, to column 3, line 41.        |
| X        | 1, 2, 6, 8         | US 5800726 A   | (IBM), see the preamble, including the references to the prior art.   |
| X        | 1, 2, 7, 8         | US 5248386 A   | (AL.  |
| X        | 1-3, 6, 7          | US 4401509 A   | (FMC CORPN), see especially the preamble.                             |
| X        | 1-3, 6             | US 4306933 A   | (CHEMLINE IND.), see especially the summary of invention.             |
| X        | 1, 2, 4, 5, 7      | US 4220706 A   | (SPAK)  |
| X        | 1, 2, 6-8          | WPI Abstract Accession No. 1992-242857 (30), EDOC abstract & DE 4100839 A (BASF), see abstracts.                   |   |
| X        | 1, 2, 6, 7         | WPI Abstract Accession No. 1996-408834 (41), EDOC & JAPIO abstracts, & JP 080199376 A (NEC TOYAMA), see abstracts. |   |
| X        | 1-3, 7, 8          | WPI Abstract Accession No. 1989-240075 (33), EDOC abstract & SU 1458430 A (TAROSL POLY), see abstracts.            |   |